

WHAT IS CLAIMED IS:

1. A reversible thermosensitive recording medium comprising at least a reversible thermo-sensitive recording layer provided on a supporting substrate and, a protective layer provided on the recording layer, wherein the  
5 recording layer is arranged so as to develop a first color therein when it is heated to a specific temperature level between a second temperature and a third temperature which is higher than the second temperature and then cooled to a first temperature level between normal temperature and the second temperature which is higher than the normal temperature, while so  
10 as to develop a second color therein when it is heated to another temperature level higher than a fourth temperature which is higher than the third temperature and then cooled to a particular temperature which is lower than the first temperature, and the protective layer contains at least a lubricant showing the melting point ranging from higher than or equal to the first  
15 temperature to lower than or equal to the second temperature and has a surface roughness ( $R_z$ ) of  $1.2 \mu\text{m}$  or more, where  $R_z$  represents an average rise on the surface by ten measurements.
2. A reversible thermosensitive recording medium according to claim 1, wherein the protective layer is being crosslinked.  
20 3. A reversible thermosensitive recording medium according to claim 1, wherein the lubricant is particles having particle size smaller than or equal to the thickness of the protective layer.  
25 4. A reversible thermosensitive recording medium according to claims 1, wherein the content of the lubricant in the protective layer is higher than or equal to 0.1 and lower than 10.0 percent by weight.  
5. A reversible thermosensitive recording medium according to claim 1, wherein the protective layer contains a filler having an oil absorption level of 20 ml/100g or higher.  
30 6. A reversible thermosensitive recording medium according to claim 1, wherein the surface roughness ( $R_z$ ) of recording side of the reversible thermosensitive recording medium is less than or equal to  $5.0 \mu\text{m}$ .  
7. A reversible thermosensitive recording medium according to claims 1,

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SITIVE RECORDING MEDIUM

wherein the surface roughness ( $R_z$ ) of recording side of the reversible thermosensitive recording medium ranges from  $1.5 \mu\text{m}$  to  $5.0 \mu\text{m}$ .

8. A reversible thermosensitive recording medium according to claim 1, wherein the surface roughness ratio ( $Sm/R_z$ ) (where the  $Sm$  represents a smoothness by the distance on average between each projections) of the reversible thermosensitive recording surface of the reversible thermosensitive recording medium ranges from 30 to 120.

9. A reversible thermosensitive recording medium according to claim 1, wherein the strength, which complying to JIS K5400-1990, of the surface film coated on the recording side of the reversible thermosensitive recording medium is higher than or equal to the F.

10. A reversible thermosensitive recording medium according to claim 1, wherein the recording medium has a multiplicity of layers consisting of a supporting substrate layer, thereon interposed a reversible thermosensitive recording layer, thereon interposed an intermediate layer, and thereon interposed a protective layer.

11. A reversible thermosensitive recording medium according to claim 1, wherein all resin materials of recording layer and of thereon provided all layers are a resin or resins which is or are capable of crosslinking.

20 12. A reversible thermosensitive recording medium according to claim 1, wherein at least one of the layers of the reversible thermosensitive recording medium contains at least one type of filler.

25 13. A reversible thermosensitive recording medium according to claim 12, wherein the filler in the reversible thermosensitive recording medium is an inorganic filler.

14. A reversible thermosensitive recording medium according to claim 1, wherein the reversible thermosensitive recording medium further comprising information memory means.

30 15. A reversible thermosensitive recording medium according to the claim 14, wherein the information memory means are at least one selected from a group consisting of a magnetic recording layer, a magnetic stripe, an IC memory, and an optical memory, which are accommodated at least a part

in the medium.

16. A reversible thermosensitive recording medium according to claims 1, wherein the supporting substrate comprises two or more different sheets being bonded together.

5        17 A reversible thermosensitive recording medium which comprises a reversible thermosensitive recording portion having a reversible thermosensitive recording medium according to claim 1, a supporting substrate, and thereon provided an adhesive layer.

10      18. A reversible thermosensitive recording medium according to claim 1, wherein a hard image or images is or are being printed on one or both of the upper and lower sides of the reversible thermosensitive recording medium.

15      19. A reversible thermosensitive recording method, wherein the method utilizes a reversible thermosensitive recording medium according to claim 1, as a point card, a prepaid card, a clinic card, an entrance card, or a commuter ticket.

20      20. An image forming method for a reversible thermosensitive recording medium, wherein a reversible thermosensitive recording medium according to claim 1 is heated for developing and/or erasing image.

20      21. An image forming method for a reversible thermosensitive recording medium according to claim 20, wherein a thermal head is employed as the printing means.

25      22. An image forming method for a reversible thermosensitive recording medium according to claim 20, wherein the image-erasing means are one of selected from at least a thermal head, a ceramic heater, a heat control, a hot stamp, and a heat block.